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The use of the terms “a” and “an” and “the” and similar referents in the context of describing the invention (especially in the context of the following claims) are to be construed to cover both the singular and the plural, unless otherwise indicated herein or clearly contradicted by context. For example, it will be understood that “a polyvinyl acetate type polymer” or “a monobasic phosphate” could include more than one of each of these ingredients. The terms “comprising,” “having,” “including,” and “containing” are to be construed as open-ended terms (i.e., meaning “including, but not limited to,”) unless otherwise noted. Recitation of ranges of values herein are merely intended to serve as a shorthand method of referring individually to each separate value falling within the range, unless otherwise indicated herein, and each separate value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g., “such as”) provided herein, is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention unless otherwise claimed. No language in the specification should be construed as indicating any non-claimed element as essential to the practice of the invention.

Preferred embodiments of this invention are described herein, including the best mode known to the inventors for carrying out the invention. Variations of those preferred embodiments may become apparent to those of ordinary skill in the art upon reading the foregoing description. The inventors expect skilled artisans to employ such variations as appropriate, and the inventors intend for the invention to be practiced otherwise than as specifically described herein. Accordingly, this invention includes all modifications and equivalents of the subject matter recited in the claims appended hereto as permitted by applicable law. Moreover, any combination of the above-described elements in all possible variations thereof is encompassed by the invention unless otherwise indicated herein or otherwise clearly contradicted by context.

The invention claimed is:

1. A method of preparing a cementitious article comprising:

- (a) preparing a cementitious slurry, wherein the cementitious slurry comprises:
  - (i) cementitious material present in an amount of at least about 50% by weight of the cementitious slurry;
  - (ii) polyvinyl acetate or polyvinyl alcohol polymer or copolymer present in an amount of from about 0.1% to about 2% by weight of the cementitious slurry;
  - (iii) boric acid present in an amount of from about 0.1% to about 1% by weight of the cementitious slurry; and
  - (iv) monobasic phosphate present in an amount of from about 0.1% to about 1% by weight of the cementitious slurry;
- (b) depositing the cementitious slurry onto an advancing sheet of facer material; and
- (c) allowing the slurry to set.

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2. The method of claim 1, wherein the facer material comprises glass fiber, polymer fiber, mineral fiber, organic fiber, or a combination thereof.

3. A cementitious article comprising:

- (a) a cementitious component that (i) comprises a cementitious material, a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, a monobasic phosphate, and optionally boric acid; (ii) is formed from a slurry that comprises a cementitious material, a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, a monobasic phosphate, and optionally boric acid; or both (i) and (ii); and
- (b) a first surface of the component, a second surface of the component, and a central region of the component, overlapping a central axis, halfway between the first surface and the second surface; wherein the total concentration of the polyvinyl acetate or polyvinyl alcohol polymer or copolymer, monobasic phosphate, and optionally boric acid, in one or both regions in the component adjacent the first and second surfaces, respectively, is greater than the total concentration of the polyvinyl acetate or polyvinyl alcohol polymer or copolymer, monobasic phosphate, and boric acid in the central region of the component; and
- (c) at least one facer layer for supporting the component.

4. The cementitious article of claim 3, the facer layer comprising glass fiber, polymer fiber, mineral fiber, organic fiber, or a combination thereof.

5. The cementitious article of claim 4, further comprising at least one dense layer optionally comprising a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, a monobasic phosphate, and optionally boric acid, wherein the dense layer is disposed between the component and the at least one facer layer.

6. A method of preparing a cementitious article comprising:

- (a) preparing a cementitious slurry, the cementitious slurry comprising cementitious material, a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, a monobasic phosphate, about 0.1-0.5 wt. % boric acid, and water; and
- (b) allowing the slurry to set.

7. The method of claim 6, further comprising depositing the cementitious slurry on a facer layer for supporting the component, the facer layer comprising glass fiber, polymer fiber, mineral fiber, organic fiber, or a combination thereof.

8. A cementitious article comprising a cementitious component, wherein the cementitious component (i) comprises a cementitious material, a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, a monobasic phosphate, and about 0.1-0.5 wt. % boric acid; (ii) is formed from a slurry that comprises a cementitious material, a polyvinyl acetate or polyvinyl alcohol polymer or copolymer, about 0.1-1 wt. % of a monobasic phosphate, and about 0.1-0.5 wt. % boric acid; or both (i) and (ii).

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